

Curriculum Vitae

Evan W. Reynolds, Ph.D.

Campbell University
Department of Chemistry and Physics
PO Box 308
Buies Creek, NC 27506
910-893-1736 (Office)
email: ereynolds@campbell.edu
website: <https://www.evanwreynolds.com/>

Employment

2023-present	Associate Professor of Chemistry, Campbell University
2017-2023	Assistant Professor of Chemistry, Campbell University
May-Aug. 2017	Postdoctoral Research Associate, University of North Carolina-Chapel Hill PI: Eric Brustad

Education

2017	Ph.D. in Chemistry, University of North Carolina-Chapel Hill Graduate Certificate in Molecular and Cellular Biophysics PI: Eric Brustad
2012	B.S. in Chemistry with Highest Distinction, University of Virginia B.A. Mathematics Echols Scholar PI: James Demas

Teaching Experience

Courses taught at Campbell University:

(*indicates new courses that I have developed/co-developed)

1. Chem 111: General Chemistry I

- Terms taught: Fall of 2017-2023, Spring 2018
- Enrollment: 40-60 students
- Course content: Fundamental chemical concepts including states of matter, physical and chemical properties, stoichiometry, atomic structure, bonding, chemical reactions, and chemical composition.

2. Chem 111L: General Chemistry I Laboratory

- Terms taught: Fall 2017, 2022, 2023, Spring 2019

- Enrollment: 12-16 students
 - Course content: Basic laboratory techniques in chemistry including use of common instruments and glassware, density measurement, identification of an unknown compound based on its chemical properties, use of Excel for plotting data, and titrations.
3. **Chem 113: General Chemistry II**
 - Terms taught: Spring of 2018-2024
 - Enrollment: 40-60 students
 - Course content: Chemical and physical properties of solutions, chemical equilibria, acid/base equilibria, chemical kinetics, thermodynamics and electrochemistry.
 4. **Chem 113L: General Chemistry II Laboratory**
 - Terms taught: Spring of 2018, 2020, 2022, 2024
 - Enrollment: 12-16 students
 - Course Content: Redox titrations, measurement of colligative properties of solutions, chemical kinetics, UV-Vis spectroscopy, acid-base chemistry and properties of buffers.
 5. **Chem 227L: Organic Chemistry I Laboratory**
 - Terms taught: Fall of 2018-2022
 - Enrollment: 14-18 students
 - Course content: Introduction to common laboratory techniques in organic chemistry including determination of melting points, recrystallization, distillation, and spectroscopy.
 6. **Chem 228: Organic Chemistry II**
 - Terms taught: Summer of 2018-2023
 - Enrollment: 20-30 students
 - Course content: A mechanistic approach to the chemistry of organic compounds. Topics include nucleophilic substitution and elimination reactions, electrophilic addition to nonpolar pi bonds, electrophilic aromatic substitution, and nucleophilic addition to polar pi bonds.
 7. **Chem 228L: Organic Chemistry II Laboratory**
 - Terms taught: Summer of 2018-2022, Spring of 2019, 2021, 2022, 2024
 - Enrollment: 20-30 students
 - Course content: Modern techniques in organic synthesis, such as electrophilic aromatic substitution reactions, Diels-Alder reactions, electrophilic addition reactions, and IR and NMR spectroscopy to identify an unknown.
 8. **Chem 441: Special Topics in Biochemistry***
 - Terms taught: Fall of 2018, 2020-2022
 - Enrollment: 4-7 students
 - Developed as a new class for chemistry majors
 - Course content: structure and function of major classes of biomolecules, introduction to metabolism of biomolecules, biological kinetics and thermodynamics, mechanistic understanding of biological reactions, and use of the current literature.

9. Chem 452: Literature Seminar

- Terms taught: Spring 2019
- Enrollment: 5 students
- Course content: reading and critical analysis of scientific literature, oral presentation skills.

10. Biol 280: Essentials of Microbiology and Biochemistry*

- Terms taught: Fall of 2018-2023
- Enrollment: 2-10 students
- Co-developed with Dr. Stephanie Mathews of Biology as a new class for engineering students; blended lecture/lab course
- Course content: biology of microorganisms, properties and structures of cellular components and metabolism as they relate to cellular function. Laboratory introduces aseptic technique and recombinant production of bacterial enzymes used in pharmaceutical applications.
- Lab includes participation in the Design-2-Data CURE network based out of UC-Davis.

11. Chem 432/432L: Biochemistry II Lecture & Lab*

- Terms taught: Spring 2021, 2023-2024
- Enrollment: 3-9 students
- Developed as a new required course for biochemistry majors.
- Lab component developed as a CURE, investigating effects of mutation on thiamine-dependent enzymes. Includes a computational component on bioinformatics and molecular dynamics.
- Course content: thermodynamics and kinetics of biological systems, enzyme mechanisms of the major pathways of carbohydrate, lipid and amino acid metabolism. Regulation of these pathways to maintain homeostasis at the cellular and organismal level.

12. CUF 100: Campbell University Freshman Seminar

- Terms taught: Fall 2022
- Enrollment: 12 students
- Course content: Students explore behaviors and knowledge-based skills related to vocational alignment, academic success, and psychosocial competencies to help them succeed in college and their future careers.

13. HON 207: From DNA to Dolly: Modern Innovations in Molecular Biology*

- Terms taught: Spring 2023
- Developed as a new course for Campbell's honors program
- Course content: history of molecular biology from the 1940s to today, with an emphasis on examining the primary scientific literature of the landmark discoveries of last 80 years, as well as development of an authentic research proposal based on the current state of the field.

Courses taught at UNC-Chapel Hill:

14. Chem 530L: Biological Chemistry Laboratory

- Terms Taught: Fall 2012, Spring 2013
- Enrollment: 10-15 students
- Course content: As a teaching assistant, duties included pre-lab lectures, weekly office hours, developing and administering in-lab quizzes, and grading 2 full lab reports and the lab final. Techniques taught included plasmid DNA isolation, protein expression and purification, and enzyme kinetics.

Courses Taught at University of Virginia:

15. Chem 3881: Intermediate Chemical Experimentation (Physical Chemistry Laboratory)

- Terms Taught: Fall 2011
- Enrollment: 20 students
- Course content: As teaching assistant, duties included pre-lab lectures, weekly office hours, and grading bi-weekly lab reports. Techniques taught included non-linear least squares fitting, kinetics, and interpretation of x-ray diffraction and IR data.

16. Chem 2220: Solutions Chemistry (Analytical Chemistry Laboratory)

- Terms Taught: Spring 2012
- Enrollment: 20 students
- Course content: As a teaching assistant, duties included pre-lab lectures, weekly office hours, grading weekly assignments, and helping students develop and present independent final projects. Helped redesign the course and create new labs and assessment materials. Techniques taught included gravimetric analysis, acid/base titrations, and determination of analyte concentration using UV-Vis absorbance.

Undergraduate Research Students Supervised

From Campbell University:

(*indicates undergraduate coauthor on a peer-reviewed publication)

1. Sumiya Bibi (8/23-present)
2. Angeliqne Girard (8/23-5/24, applying to medical schools)
3. Jose Perez-Hernandez (6/23-8/23, high school student as part of ACS Project SEED)
4. Rachel Van Winkle (1/23-present)
5. Charlie Creed (1/23-5/24, Medical School, Texas)
6. Nicholas Woodlief (8/22-present)
7. Stephanie Bryant (1/21-5/23, applying to nurse practitioner programs)
8. Ryan Peterson (1/21-5/23, Energy Science & Engineering PhD at Oak Ridge National Lab)
9. Haley Debnam (8/20-5/21, Dental School, East Carolina University)
10. Wyatt Welton (1/20-8/21, Masters in Biomedical Sciences, Campbell University)
11. Katherine Darrigrand (1/19-5/21, Osteopathic Medicine, Lincoln Memorial University)
12. Peter Robbins (8/18-5/20, applying to graduate schools)
13. Mable Hinshaw (1/19-5/19, Masters in Public Health, Campbell University)
14. Shane Galvin (5/18-8/18, Mathematics PhD student)

From UNC-Chapel Hill:

I received a student-nominated teaching award at UNC for my dedication to mentoring undergraduates.

15. Matthew McHenry* (9/14-5/17, Graduate School, Harvard University)
16. Luke Bartelt (9/13-5/14, Graduate School, Duke University)
17. Fabien Cannac* (9/12-5/13, Graduate School, Paul Scherrer Institute)

From University of Virginia:

18. Hannah Li (9/11-5/12, Graduate School, University of Virginia)
19. Joshua Pan (9/11-5/12)

Research Experience and Expertise

Current Interests:

- Engineering native and artificial cofactor-dependent enzymes for non-natural biocatalysis

Graduate work:

Advisor: Dr. Eric M. Brustad

Thesis: *Expanding the chemical functionality of the cell with orthogonal enzyme/cofactor pairs*

- Directed evolution of hemoproteins for altered cofactor preference towards artificial heme mimetics and their application towards asymmetric cyclopropanation reactions
- Protein crystallography
- site-directed unnatural amino acid mutagenesis

Undergraduate work:

Advisor: Dr. James N. Demas

- Photochemistry and photophysics of transition metal complexes.

Publications

1. T.D Schwochert, C.L. Cruz, J.W Watters*, E.W. Reynolds, D.A. Nicewicz, E.M. Brustad. Design and Evaluation of Artificial Hybrid Photoredox Biocatalysts. *ChemBioChem*, **2020**, *21*, 3146-3150.
2. E.W. Reynolds[†], T. D. Schwochert[†], M.W. McHenry*, J.W. Watters*, E.M. Brustad. Orthogonal Expression of an Artificial Metalloenzyme for Abiotic Catalysis. *ChemBioChem*, **2017**, *18*, 2380-2384.
3. E.W. Reynolds, M.W. McHenry*, F. Cannac*, J.G. Gober, C.D. Snow, E.M. Brustad. An Evolved Orthogonal Enzyme/Cofactor Pair. *JACS*, **2016**, *138*, 12451-12458.
4. E.W. Reynolds, J.N. Demas, B.A. Degraff. Viscosity and Temperature Effects on the Rate of Oxygen Quenching of Tris-(2,2'-bipyridine)ruthenium(II). *J. Fluoresc.*, **2013**, *23*, 237-241.

[†]These authors contributed equally. *Denotes undergraduate coauthor.

Awards, Honors, Grants & Fellowships

2023	College of Arts & Sciences Dean's Award for Excellence
2022	North Carolina Independent Colleges and Universities STEM Faculty-Student Mentoring Grant (\$24,900 over 3 years)
2022	Campbell Faculty Development Grant, <i>Multifaceted Teaching Development: Pursuing Recommendations Based on Peer Review of Teaching</i> . (\$2400)
2021	Campbell Faculty Development Grant, <i>Taking the MCAT to Enhance Biochemistry Teaching and Programs</i> . (\$495)
2020	Campbell Faculty Development Grant, <i>2020 Virtual SACNAS Conference: An Opportunity for Development Across the Areas of Teaching, Scholarship, and Service</i> . (\$515)
2017	Smithwick Dissertation Completion Fellowship, UNC-Chapel Hill (\$20,000)
2016	Student Undergraduate Teaching Award, UNC-Chapel Hill
2016	Carl Storm URM Travel Fellowship, Gordon Research Conference
2013	National Science Foundation Graduate Research Fellowship (\$34,000/year for 3 years)
2012	Francis P. Venable Fellowship, UNC-Chapel Hill (\$750)
2012	American Chemical Society Award for Inorganic Chemistry, UVA
2010, 2011	Kenneth C. Bass Summer Research Scholarship, UVA (\$2,000)
2008	American Chemistry Society Scholars Program (\$4,000 over 4 years)

Unfunded Grant Applications:

2024	NSF LEAPS-MPS Program, <i>Expanding asymmetric catalysis with thiamine-dependent enzymes</i> . (\$250,000)
2022	NC Biotechnology Center Flash Grant Program, <i>Asymmetric Radical Reactions Catalyzed by Thiamine-Dependent Enzymes</i> . (\$27,500)
2021	ACS Green Chemistry Institute Pharmaceutical Roundtable Grant Program, <i>Thiamine diphosphate-dependent enzyme-catalyzed dynamic kinetic resolution for the stereoselective synthesis of α-hydroxy ketones</i> . (\$50,000)
2020	Cottrell Scholars Program, <i>Exploiting thiamine-dependent enzymes for organic synthesis and as catalysts for change in undergraduate biochemistry education</i> . (\$100,000)
2019	ACS Green Chemistry Institute Pharmaceutical Roundtable Grant Program, <i>Site-specific immobilization of thiamine diphosphate-dependent enzymes and their application towards sustainable synthesis of α-hydroxy ketones</i> . (\$25,000)

Invited Presentations

1. E.W. Reynolds, M. Perez, M. Haley, J. Bashaw. *The Curricular Experience*, Panelist as part of Freshman Orientation, Campbell University, June 24, 2022.
2. E.W. Reynolds, C. Toscano, S. Raynor. *The Value of Undergraduate Research*. Keynote Address at the Wiggins Academic Symposium, Campbell University, March 30, 2022.
3. E.W. Reynolds, M. Larsen, S. Mercogliano, A. Parker. *Productive Student-Faculty Relationships*. Panelist as part of Freshman Orientation, Campbell University, August 2020.

4. E.W. Reynolds, M. Banuelos, A. Eily. *How to Give Effective Online Presentations: Skills for Virtual Conferences and Online Classes*. Panelist on a [SACNAS Webinar](#) (~2,500 views as of May 2022), May 26, 2020.
5. E.W. Reynolds, M. Bañuelos, M. Hamilton, G. Quiñones, J. Vargas-Muñiz, R. León Zayas. *Student Presentations & COVID-19*. Panelist on a [SACNAS Webinar](#) (~4,500 views as of May 2022), April 28, 2020.
6. E.W. Reynolds. *Do's and Don'ts for Productive Student-Faculty Relationships*. Presentation as part of Camel-101 Workshop for Freshman Orientation, Campbell University, August 2019.

Conference Presentations

1. E.W. Reynolds. *A CURE for underrepresentation in STEM: Getting high school students involved in research through adaptation of a course-based undergraduate research experience*. Oral Presentation at the Southeast Regional Meeting of the ACS, Durham, NC, October 25-28, 2023
2. E.W. Reynolds. *Modernizing the Biochemistry Lab Experience: A Blended Computational and Experimental Biochemistry CURE*. Oral Presentation at the Biennial Conference on Chemical Education, Purdue University, July 31-August 4, 2022
3. E.W. Reynolds, M.W. McHenry, F. Cannac, C.D. Snow, E.M. Brustad. *Expanding the Chemical Functionality of the Cell with Orthogonal Enzyme/Cofactor Pairs*. Representative of UNC-Chapel Hill and Campbell University at the Schaap Chemistry Symposium, Hope College, MI, July 2017.
4. E.W. Reynolds, M.W. McHenry, F. Cannac, C.D. Snow, E.M. Brustad. *Evolution of an Orthogonal Enzyme/Cofactor Pair*. Poster at the Carolina Biophysics Symposium, Spring 2017.
5. E.W. Reynolds, M.W. McHenry, F. Cannac, C.D. Snow, E.M. Brustad. *Evolution of an Orthogonal Enzyme/Cofactor Pair*. Poster at the Gordon Research Conference on Biocatalysis, University of New England, ME, July 2016.
6. E.W. Reynolds, E.M. Brustad. *Superiority through Selectivity: Unnatural Cofactors and the Enzymes that Bind Them*. Oral Presentation at the International Conference on Protein Engineering, Chicago, IL, October 2015.
7. E.W. Reynolds, E.M. Brustad. *Superiority through Selectivity: Unnatural Cofactors and the Enzymes that Bind Them*. Oral Presentation at UNC-CH Research Conference, Spring 2015.
8. E.W. Reynolds, E.M. Brustad. *Superiority through Selectivity: Unnatural Cofactors and the Enzymes that Bind Them*. Oral Presentation at UNC-Chapel Hill Chemical Biology/Bioorganic Chemistry Departmental Seminar, Spring 2015.
9. E.W. Reynolds, J.N. Demas. *Luminescence Based Lead Detection in Aqueous Environments*. Oral Presentation at UVA Chemistry Distinguished Majors Research Symposium, Spring 2012.
10. E.W. Reynolds, K.J. Morris, A.M. Dattelbaum, G.A. Baker, J.H. Werner, J.N. Demas. *Ionic Liquids as Supports for Luminescence based Oxygen Sensors*. Poster presented at ACS Virginia Regional Meeting, Fall 2011.
11. E.W. Reynolds, C. Uyeda, B. Hueholt-Leavens, K.J. Morris, J.N. Demas. *Applications of the Photophysics and Photochemistry of Transition Metal Complexes: Luminescence-Based Sensors*. Poster presented at UVA Summer Research Symposium, Summer 2011.
12. E.W. Reynolds, K.J. Morris, A.M. Dattelbaum, G.A. Baker, J.H. Werner, J.N. Demas. *Properties of Luminescence Quenching by Oxygen in Ionic Liquid Supports*. Poster presented at ACS Virginia Regional Meeting, Fall 2010.
13. E.W. Reynolds, K.J. Morris, A.M. Dattelbaum, G.A. Baker, J.H. Werner, J.N. Demas. *Ionic Liquids as Supports for Luminescence Based Sensors*. Oral Presentation at UVA Summer Research Symposium, Summer 2010.

Student Presentations

National Meetings

1. R.W. Peterson, E.W. Reynolds. *Developing the substrate scope of thiamine-dependent enzymes for abiological catalysis*. Poster presentation at the 265th ACS National Meeting, Indianapolis, IN, March 26-28, 2023.
2. K.G. Darrigrand, P.W. Robbins, E.W. Reynolds. *Enzymatic dynamic kinetic resolution for the stereoselective synthesis of alpha-hydroxyketones*. Oral presentation at the 261st ACS National Meeting, Virtual Event, April 12, 2021.
3. P.W. Robbins, T. D. Schwochert, J.W. Watters, M.W. McHenry, C.D. Snow, E.M. Brustad, E.W. Reynolds. *Computational identification of protein scaffolds for the generation of artificial metalloenzymes*. Poster presented at the 257th ACS National Meeting, Orlando, FL, April 1, 2019.

Regional and State Meetings

4. R.C. Van Winkle, E.W. Reynolds. *Enzymatic cross-coupling of carbonyl compounds and alkyl halides: Crossing into new territory with thiamine-dependent enzymes*. Poster presented at the NC Academy of Science Annual Meeting, Winston-Salem State University, April 5-6, 2024. **1st place Derieux award** in the Cell/Molecular Biology division.
5. N. Woodlief, E.W. Reynolds. *Asymmetric Radical Catalysis with Thiamine-Dependent Enzymes*. Poster presented at the NC Academy of Science Annual Meeting, Winston-Salem State University, April 5-6, 2024. **2nd place Derieux award** in the Cell/Molecular Biology division.
6. C. Creed, E.W. Reynolds. *Evaluation of the laccase-like multi-copper oxidase from *Paenibacillus glucanolyticus* for non-natural biocatalysis*. Poster presented at the NC Academy of Science Annual Meeting, Winston-Salem State University, April 5-6, 2024
7. S. Bibi, E.W. Reynolds. *Investigation of the S321A variant of the thiamine-dependent enzyme *SucA* in abiological carbon-carbon bond-forming reactions*. Poster presented at the NC Academy of Science Annual Meeting, Winston-Salem State University, April 5-6, 2024
8. A. Girard, E.W. Reynolds. *Rational design of mutations to expand the substrate scope of the thiamine-dependent enzyme *SucA**. Poster presented at the NC Academy of Science Annual Meeting, Winston-Salem State University, April 5-6, 2024
9. N. Woodlief, E.W. Reynolds. *Asymmetric Radical Catalysis with Thiamine-Dependent Enzymes*. NC Undergraduate Research and Creativity Symposium, Wingate University, November 11, 2023
10. R.C. Van Winkle, E.W. Reynolds. *Enzymatic cross-coupling of carbonyl compounds and alkyl halides: Crossing into new territory with thiamine-dependent enzymes*. Poster presented at the Southeast Regional Meeting of the ACS, Durham, NC, October 25-28, 2023
11. J. Perez-Hernandez, E.W. Reynolds. *Expanding the substrate scope of the thiamine-dependent enzyme alpha-ketoglutarate dehydrogenase through strategic mutations: A structure-based approach*. Project SEED Poster presented at the Southeast Regional Meeting of the ACS, Durham, NC, October 25-28, 2023
12. S. Bibi, E.W. Reynolds. *Investigation of the S321A variant of the thiamine-dependent enzyme *SucA* in abiological carbon-carbon bond-forming reactions*. Poster presented at the Southeast Regional Meeting of the ACS, Durham, NC, October 25-28, 2023
13. A. Girard, E.W. Reynolds. *Rational design of mutations to expand the substrate scope of the thiamine-dependent enzyme *SucA**. Poster presented at the Southeast Regional Meeting of the ACS, Durham, NC, October 25-28, 2023
14. C. Creed, E.W. Reynolds. *Evaluation of the laccase-like multi-copper oxidase from *Paenibacillus glucanolyticus* for non-natural biocatalysis*. Poster presented at the Southeast Regional Meeting of the ACS, Durham, NC, October 25-28, 2023

15. R.W. Peterson, E.W. Reynolds. *Developing the substrate scope of thiamine-dependent enzymes for abiological catalysis*. Southeast Regional Meeting of the ACS, San Juan, Puerto Rico, October 19-22, 2022
16. R.W. Peterson, E.W. Reynolds. *Expression and purification of the E1 subunit of the 2-oxoglutarate dehydrogenase complex for abiological catalysis*. NC Academy of Science 118th Annual Meeting, Campbell University, March 18-19, 2022. **1st place Derieux award** in the Cell/Molecular Biology division.
17. R.W. Peterson, E.W. Reynolds. *Expression and purification of the E1 subunit of the 2-oxoglutarate dehydrogenase complex for abiological catalysis*. Southeast Regional Meeting of the ACS, Birmingham, AL, November 10-13, 2021.
18. R.W. Peterson, E.W. Reynolds. *Expression and purification of the E1 subunit of the 2-oxoglutarate dehydrogenase complex for abiological catalysis*. Oral presentation at the NC Academy of Science virtual conference, March 2021.
19. K.G. Darrigrand, P.W. Robbins, E.W. Reynolds. *Enzymatic dynamic kinetic resolution for the stereoselective synthesis of alpha-hydroxyketones*. Oral presentation at the NC Academy of Science virtual conference, March 2021.
20. K.G. Darrigrand, P.W. Robbins, E.W. Reynolds. *Enzymatic dynamic kinetic resolution for the stereoselective synthesis of alpha-hydroxyketones*. Oral Presentation at the NC Undergraduate Research and Creativity Symposium virtual conference, November 2020.
21. P.W. Robbins, K.G. Darrigrand, E.W. Reynolds (2019) *Stereoselective synthesis of non-natural products by thiamine diphosphate-dependent enzymes*. Oral presentation at NC Undergraduate Research and Creativity Symposium, Durham, NC. November 2019.
22. K.G. Darrigrand, P.W. Robbins, E.W. Reynolds. *Enzymatic dynamic kinetic resolution for the stereoselective synthesis of alpha-hydroxyketones*. Poster presented at the Southeast Regional ACS Meeting, Savannah, GA, October 2019.

University and Department Meetings

23. R.C. Van Winkle, E.W. Reynolds. *Enzymatic cross-coupling of carbonyl compounds and alkyl halides: Crossing into new territory with thiamine-dependent enzymes*. Poster presentation at Chemistry Department Edna Queener Proffit Symposium, April 22, 2024.
24. A. Stroud, E.W. Reynolds. *Comparison of the effects of the mutations H260G and H260F on the substrate scope of the thiamine-dependent enzyme SucA*. Poster presentation at Chemistry Department Edna Queener Proffit Symposium, April 22, 2024.
25. S. Bibi, E.W. Reynolds. *Investigation of the S321A variant of the thiamine-dependent enzyme SucA in abiological carbon-carbon bond-forming reactions*. Poster presentation at Chemistry Department Edna Queener Proffit Symposium, April 22, 2024.
26. A. Girard, E.W. Reynolds. *Rational design of mutations to expand the substrate scope of the thiamine-dependent enzyme SucA*. Poster presentation at Chemistry Department Edna Queener Proffit Symposium, April 22, 2024.
27. S. Bibi, E.W. Reynolds. *Investigation of the S321A variant of the thiamine-dependent enzyme SucA in abiological carbon-carbon bond-forming reactions*. Poster presentation at Wiggins Academic Symposium, Campbell University, March 27, 2024. **High Merit award**.
28. A. Girard, E.W. Reynolds. *Rational design of mutations to expand the substrate scope of the thiamine-dependent enzyme SucA*. Poster presentation at Wiggins Academic Symposium, Campbell University, March 27, 2024. **Merit award**.
29. C. Clark, S. Bell, E.W. Reynolds. *Design and characterization of the beta-glucosidase B A408S variant as part of the national Design-to-Data Project*. Poster presentation at Wiggins Academic Symposium, Campbell University, March 27, 2024

30. R.C. Van Winkle, E.W. Reynolds. *Enzymatic cross-coupling of carbonyl compounds and alkyl halides: Crossing into new territory with thiamine-dependent enzymes*. Poster presentation at Wiggins Academic Symposium, Campbell University, March 27, 2024
31. C. Creed, E.W. Reynolds. *Evaluation of the laccase-like multi-copper oxidase from *Paenibacillus glucanolyticus* for non-natural biocatalysis*. Poster presentation at Wiggins Academic Symposium, Campbell University, March 27, 2024
32. A. Stroud, E.W. Reynolds. *Comparison of the effects of the mutations H260G and H260F on the substrate scope of the thiamine-dependent enzyme SucA*. Poster presentation at Wiggins Academic Symposium, Campbell University, March 27, 2024
33. R.C. Van Winkle, E.W. Reynolds. *Enzymatic cross-coupling of carbonyl compounds and alkyl halides: Crossing into new territory with thiamine-dependent enzymes*. Poster presented at the Campbell Howard Student Research Fellows Conference, August 22, 2023
34. R.W. Peterson, E.W. Reynolds. *Developing the substrate scope of thiamine-dependent enzymes for abiological catalysis*. Oral presentation at Chemistry Department Edna Queener Proffit Symposium, April 24, 2023
35. N. Woodlief, E.W. Reynolds. *Asymmetric radical catalysis with thiamine-dependent enzymes*. Poster presentation at Chemistry Department Edna Queener Proffit Symposium, April 24, 2023
36. N. Woodlief, E.W. Reynolds. *Asymmetric radical catalysis with thiamine-dependent enzymes*. Poster presentation at Wiggins Symposium, Campbell University, March 29, 2023. **Merit award**.
37. C. Creed, E.W. Reynolds. *Evaluation of the laccase-like multi-copper oxidase from *Paenibacillus glucanolyticus* for non-natural biocatalysis*. Poster presentation at Wiggins Academic Symposium, Campbell University, March 29, 2023. **Merit award**.
38. O.G. Denton, E.W. Reynolds. *Design and characterization of a beta-glucosidase B variant as part of the national Design-to-Data Project*. Poster presentation at Wiggins Academic Symposium, Campbell University, March 29, 2023
39. R.W. Peterson, E.W. Reynolds. *Exploring the substrate scope of the E1 subunit of the 2-oxoglutarate dehydrogenase complex for abiological catalysis*. Oral Presentation at Campbell Chemistry Department Edna Queener Proffit Symposium, April 26, 2022.
40. S.A. Bryant, E.W. Reynolds. *Exploring the substrate scope of benzaldehyde lyase-catalyzed benzoin condensation reactions*. Poster Presentation at Wiggins Academic Symposium, Campbell University, March 30, 2022.
41. W.K. Welton, E.W. Reynolds. *Enzymatic synthesis of unnatural amino acids for the generation of metal-binding proteins*. Poster Presented at Campbell Student Research Fellows Conference, August 23, 2021.
42. R.W. Peterson, E.W. Reynolds. *Expression and purification of the E1 subunit of th 2-oxoglutarate dehydrogenase complex for abiological catalysis*. Oral presentation at Campbell Chemistry Department Edna Queener Proffit Symposium, April 2021.
43. W.K. Welton, E.W. Reynolds. *Enzymatic synthesis of unnatural amino acids for the generation of metal-binding proteins*. Oral presentation at Campbell Chemistry Department Edna Queener Proffit Symposium, April 2021.
44. W.K. Welton, E.W. Reynolds. *Enzymatic synthesis of unnatural amino acids for the generation of metal-binding proteins*. Oral presentation at Wiggins Academic Symposium, Campbell University, March 2021.
45. K.G. Darrigrand, P.W. Robbins, E.W. Reynolds. *Enzymatic dynamic kinetic resolution for the stereoselective synthesis of alpha-hydroxyketones*. Oral presentation at Wiggins Academic Symposium, Campbell University, March 2021.
46. K.G. Darrigrand, P.W. Robbins, E.W. Reynolds. *Enzymatic dynamic kinetic resolution for the stereoselective synthesis of alpha-hydroxyketones*. Oral presentation at Campbell Chemistry Department Edna Queener Proffit Symposium, November 2019.

47. P.W. Robbins, K.G. Darrigrand, E.W. Reynolds, *Stereoselective synthesis of non-natural products by thiamine diphosphate-dependent enzymes*. Poster presented at Campbell Student Research Fellows Conference, July 2019.
48. P.W. Robbins, E.W. Reynolds. *Creation of a Metalloenzyme for Friedel-Craft Alkylation*. Poster presented at Wiggins Academic Symposium, Campbell University, March 2019.
49. P.W. Robbins, E.W. Reynolds. *Creation of a Metalloenzyme for Friedel-Craft Alkylation*. Oral presentation at Campbell Chemistry Department Edna Queener Proffit Symposium, November 2018.
50. S.M. Galvin, E.W. Reynolds. *Engineering Artificial Enzymes for Non-natural Catalysis*. Poster presented at Campbell Student Research Fellows Conference, July 2018.

Student Awards and Grants

Presentation Awards

2024	Rachel Van Winkle: 1st-place Derieux Award , Cell/Molecular Biology posters at NCAS
2024	Nicholas Woodlief: 2nd-place Derieux Award , Cell/Molecular Biology posters at NCAS
2024	Sumiya Bibi: High Merit award for poster presentation at Wiggins Symposium
2024	Angelique Girard: Merit award for poster presentation at Wiggins Symposium
2023	Charlie Creed: Merit award for poster presentation at Wiggins Symposium
2023	Nicholas Woodlief: Merit award for poster presentation at Wiggins Symposium
2022	Ryan Peterson: 1st-place Derieux Award , Cell/Molecular Biology posters at NCAS

Grants

2023	Nicholas Woodlief. <i>Asymmetric radical catalysis with thiamine-dependent enzymes</i> . NCICU Barthalmus Research Award (\$500)
2021	Ryan Peterson. <i>Enzymatic dynamic kinetic benzoin condensation for the stereoselective synthesis of alpha-hydroxyketones</i> . Sigma Xi Grant in Aid of Research (\$850)
2020	Katherine Darrigrand. <i>Enzymatic dynamic kinetic resolution for the stereoselective synthesis of alpha-hydroxy ketones</i> . NCAS Yarbrough Grant (\$475.25)

Campbell University Awards

2024	Rachel Van Winkle: Campbell Howard Summer Research Fellowship (\$2500)
2023	Ryan Peterson: Edna Queener Proffit Award for Excellence in Chemistry Research
2023	Rachel Van Winkle: Campbell Howard Summer Research Fellowship (\$2500)
2021	Katherine Darrigrand: Edna Queener Proffit Award for Excellence in Chemistry Research
2020	Peter Robbins: Edna Queener Proffit Award for Excellence in Chemistry Research
2020	Wyatt Welton: Campbell Howard Summer Research Fellowship (\$2500)
2019	Peter Robbins: Campbell Howard Summer Research Fellowship (\$2500)
2018	Shane Galvin: Campbell Howard Summer Research Fellowship (\$2500)

Departmental Service

Departmental Committees:

2018-present Biochemistry Curriculum Committee, **Chair**

- Interdepartmental committee between Chemistry and Biology
- Lead annual assessment of biochemistry program and contribute to department's seven year self-study
- Design and implement curriculum improvements for biochemistry program
 - In 2019-2020, led comprehensive review of our curriculum which resulted in my development of a new course, Chem 432-biochemistry II.
 - Created recommendations for MCAT preparation for pre-med advisors based on my experience taking the MCAT as part of development grant.
- Obtained full ASBMB accreditation of our biochemistry programs

Additional Departmental Service:

Nov. 2023	Department Representative at Visitation Day
Mar. 2023	Department Representative at Academic Advising Majors Fair
Mar. 2023	Department Representative at Visitation Day
Nov. 2022	Department Representative at Visitation Day
Jun. 2022	Assisted in revision of Chemistry and Biochemistry curriculum sheets
Apr. 2022	Department Representative at Admissions event
Jun. 2021	Department Representative at Orientation planning meeting
May 2021	Participated in filming of a Major Monday video for Admissions
Jul. 2020	Department Representative at Summer Orientation
Apr. 2020	Department Representative at Accepted Student Days
Jan. 2020	Department Representative at Visitation Day
Mar. 2019	Department Representative at Visitation Day
Jan. 2019	Department Representative at Visitation Day
Mar. 2018	Department Representative at Johnston County Early College Visit
Mar. 2018	Department Representative at Visitation Day
Jan. 2018	Department Representative at Visitation Day

University Service

University Committees:

2021-2022	Library Committee, Member
2019-present	Student Research Committee, Co-Chair <ul style="list-style-type: none"> ▪ Coordinator of Howard Student Research Fellows program <ul style="list-style-type: none"> • Organize application cycle each year and lead selection of Fellows • Plan program meetings and events • Publicize and promote the program through arranging for stories in Campbell publications and by organizing a promotional video. • Invited to give keynote address at 2022 Wiggins Symposium as part of my role as coordinator of the Research Fellows program. ▪ Coordinator of GAINS (Growing Alliance in STEM) Program

- NCICU grant-funded program for mentoring of underrepresented students in STEM disciplines across campus
- Oversee faculty and student mentors
- Organize program events
- Goldwater Scholarship Campus Representative
 - Assist students in preparing and submitting Goldwater scholarship applications
- Promote student participation in research conferences
- Review abstracts for the Wiggins Academic Symposium at Campbell
- Collaborated with library to develop faculty-led “Research-101” tutorials for students

2018-present Faculty Development & Research Committee, Member

- Participate in review of Development Grants/Summer Research Grants
- Assist in planning faculty development workshops

Additional University Service:

Mar. 2024 Presentation judge, Wiggins Academic Symposium
 Jan. 2024 Guest speaker on GAINS program at Board of Trustees meeting
 Nov. 2023 Focus group on Residence Life 5 year Strategic Plan
 Aug. 2023 Biology Faculty Candidate Interviews
 Mar. 2023 Presentation judge, Wiggins Academic Symposium
 Sep. 2022 Interviewed for Hispanic Heritage Month Video
 Jun. 2022 Panelist, The Curricular Experience, Orientation
 Jun. 2022 Academic Advisor Hiring Committee
 Mar. 2022 Presentation judge, Wiggins Academic Symposium
 Mar. 2021 Presentation judge, Wiggins Academic Symposium
 Aug. 2020 Panelist, Productive Student-Faculty Relationships Presentation, Orientation
 Nov. 2019 Volunteer at Campbell Community Christmas Store
 Aug. 2019 Presented on Productive Student-Faculty Relationships for Camel-101, Orientation
 Mar. 2019 Presentation judge, Wiggins Academic Symposium
 Nov. 2018 Volunteer at Campbell Community Christmas Store
 Mar. 2018 Presentation judge, Wiggins Academic Symposium
 Nov. 2017 Volunteer at Campbell Community Christmas Store

Professional Service

Organizational Memberships and Leadership:

2023-present Design to Data, **Neighbor Networks Working Group Member**

- Assist with efforts of the Design to Data national CURE network to coordinate local connections between CURE network participants.

- 2021-present North Carolina Academy of Science, **Treasurer**
- Member of the Board of Directors for the NCAS
 - Responsible for the financial workings of the organization and preparing the annual budget
- 2021-2022 North Carolina Academy of Science, **Local Arrangements Committee Member**
- Assisted in planning the annual meeting held at Campbell in March 2022
 - Served at check-in for the meeting and as session moderator
- 2018-2021 Society for the Advancement of Chicanos/Hispanics and Native Americans in Science, **Student Presentations Subcommittee Member**
- Helped to organize student presentations at the annual SACNAS meeting
 - Participated as panelist on webinars related to student presentations
- 2016-present SACNAS Member
- 2010-present ACS Member

Review Work:

- 2023-present *Journal of Industrial Microbiology and Biotechnology*, Peer Review (one article to-date)
- 2020-present *ChemBioChem*, Peer Review (five articles to-date)

Additional Professional Service:

- Apr. 2024 Presentation judge, NCAS Annual Meeting
- Nov. 2024 ASBMB accreditation application review
- May 2023 Abstract, Travel Scholarship, and Session Proposal Review for annual SACNAS Meeting
- Apr. 2023 Presentation judge, NCAS Annual Meeting
- May 2022 Abstract and Travel Scholarship Review for annual SACNAS Meeting
- Oct. 2021 Presentation judge, Annual SACNAS Meeting
- May 2021 Abstract, Travel Scholarship, and Session Proposal Review for annual SACNAS Meeting
- Mar. 2021 Presentation judge, NCAS Annual Meeting
- Feb. 2021 NC State Science Fair SRC Committee, Student Paperwork Reviewer
- Oct. 2020 Presentation judge, Annual SACNAS Meeting
- May 2020 Abstract, Travel Scholarship, and Session Proposal Review for annual SACNAS Meeting
- May 2019 Abstract and Travel Scholarship Review for annual SACNAS Meeting
- Nov. 2018 Presentation judge, NC ACS Section Meeting
- May 2018 Abstract Review for annual SACNAS Meeting
- Mar. 2018 Presentation judge, NCAS Annual Meeting
- Nov. 2017 Session Moderator, SNCURCS Meeting

Community & Church Service

- 2022-present Volunteer, St. Ann Prison Ministry
- 2021-present Lector, St. Ann Catholic Church
- 2021-present Volunteer, Marriage Preparation Ministry for Holy Name of Jesus Cathedral
- 2018-2020 Volunteer Tutor, St. Ann Learning Academy Ministry

Jul. 2019 Volunteer, ACS booth at Festival of the Eno
 Feb. 2019 Event Leader, Thermodynamics Event at NC Science Olympiad
 Sep. 2018 Co-coordinator, ACS booth at Fiesta del Pueblo
 Jul. 2018 Volunteer, ACS booth at Festival of the Eno
 2018-2020 Volunteer, NC Society of Hispanic Professionals ¡Gradúate! Program
 Feb. 2018 Volunteer, Thermodynamics Event at NC Science Olympiad

Professional Development

May 2023 KEEN Integrating Curriculum with Entrepreneurial Mindset 1.0 Workshop
 Apr. 2023 Mental Health First Aid Training
 Jul. 2022 Design-2-Data CURE Network Training
 May 2022 ASEE Masterclass on Effective Teaching (funded by faculty development grant)
 Apr. 2022 CUFS Instructor Training
 Feb. 2022 Participated in Peer Review of Teaching
 Sep. 2021 ACS Reviewer Lab Certificate
 Jul. 2021 Took MCAT for advising purposes (funded by faculty development grant)
 Jun. 2021 Honors Program Pedagogy Workshop
 Oct. 2020 SACNAS Annual Meeting (funded by faculty development grant)
 Jul. 2020 Mabel Powell Excellence in Online Course Design Certificate
 2020 Small Teaching Book Club
 Sep. 2019 Gateway-to-Completion NCICU Meeting, Metacognition Lunch & Learn
 Aug. 2019 Campbell Faculty Orientation Student Success Workshop
 Mar. 2019 Gateway to Completion Teaching and Learning Academy Meeting
 Mar. 2019 QPR Suicide Prevention Gatekeeper Program
 2018 Learner-Centered Teaching Book Club
 Aug. 2018 Campbell Faculty Orientation Learner-Centered Teaching Workshop
 Aug. 2018 Summer Webinar Series - Blackboard, Campbell Academic Computing Services
 Aug. 2018 ACS New Faculty Workshop, Washington, D.C.
 Oct. 2017 Campbell Teaching and Learning Technology Fair
 Aug. 2017 Campbell Faculty Orientation Active Learning Workshop
 2017 Center for Integrated Teaching and Learning Online Course: *An Introduction to Evidence-Based Undergraduate STEM Teaching*